

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
12 May 2005 (12.05.2005)

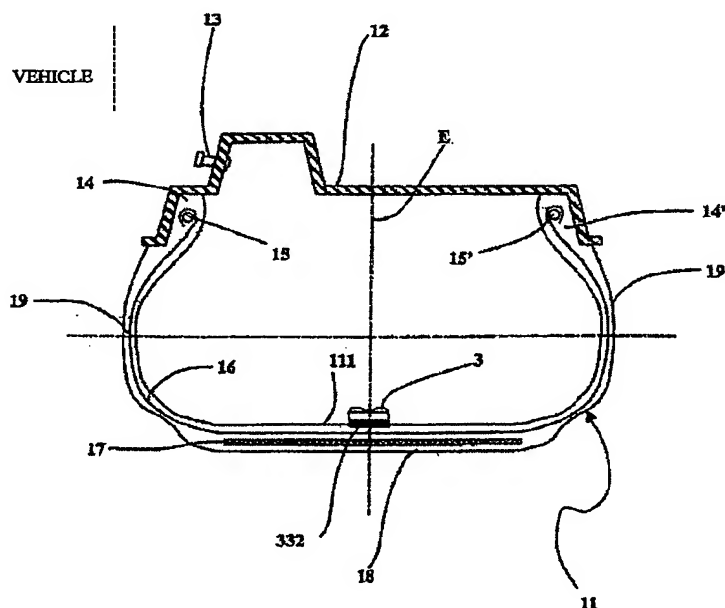
PCT

(10) International Publication Number
WO 2005/042281 A1

- (51) International Patent Classification⁷: **B60C 23/04** (74) Agents: **COLOMBO, Stefano, Paolo et al.**; Marchi & Partners S.r.l., Via Pirelli, 19, I-20124 Milan (IT).
- (21) International Application Number: **PCT/EP2003/050756** (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 24 October 2003 (24.10.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (71) Applicant (*for all designated States except US*): **PIRELLI PNEUMATICI S.P.A.** [IT/IT]; Viale Sarca, 222, I-20126 Milan (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **MANCOSU, Federico** [IT/IT]; Pirelli Pneumatici S.p.A., Viale Sarca, 222, I-20126 Milan (IT). **BRUSAROSCO, Massimo** [IT/IT]; Pirelli Pneumatici S.p.A., Viale Sarca, 222, I-20126 Milan (IT). **AROSIO, Daniele** [IT/IT]; Pirelli Pneumatici S.p.A., Viale Sarca, 222, I-20126 Milan (IT).
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR DETERMINING A TYRE LOAD DURING THE RUNNING OF A VEHICLE



(57) Abstract: Described is a method and system for determining a load exerted on a tyre fitted on a vehicle during a running of said vehicle on a rolling surface, the tyre comprising an equatorial plane, the method comprising the steps of: providing a concave upwards function $F_z = F_z(PL_c)$ of said tyre load versus a length of a contact region between said tyre and said rolling surface; estimating said length (PL_c) substantially at the equatorial plane; and deriving the tyre load corresponding to said estimated length from said function.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.